ORDER NO.AD0509065CE

J1

Portable CD Player

SL-SX470P

Colour

S.....Silver Type

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SPECIFICATIONS

Specifications

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● **Audio (CD-DA)**

Sampling frequency:	**44.1 kHz**
No. of channels:	**2 (left and right, stereo)**
Frequency response:	**20 Hz to 20,000 Hz / (+ 0dB ~ - 3.6dB)**
Headphone output level:	**RMS max. 8mW + 8mW / 16 Ω / (adjustable)**

● **Pickup**

Light source:	**Semiconductor laser**
Wavelength:	**780 nm**

● **MP3**

Supported bit-rates / (Supports variable bit rates):	**32 kbps to 320 kbps / (128 kbps is recommended)**
Supported sampling frequency:	**48 kHz / 44.1 kHz / 32 kHz**
Maximum number of items	
(total no. of albums and tracks):	**999**
(maximum no. of albums):	**500**
Maximum album levels:	**100**

● **General**

Operational temperature range: **0 ° C-40 ° C / (32 ° F-104 ° F)**

Play time:

Using on a flat stable surface at 25 ° C (77 ° F), EQ is off, Hold is on, Anti-skip is on POS 1 (CD-DA), recommended bit rate (MP3: 128 kbps), and the Digital Re-master is off (MP3).Play times are in hours and approximate.

Batteries used:

2 alkaline batteries;	**MP3 disc....75h / CD-DA disc....33h**

-The play time may be less depending on the operating conditions.
-Play time will be considerably reduced when playing CD-RW.

Dimensions (WxHxD):	**138.6mmx24.4mmx138.6mm (5 14/ 32” x 31/ 32” x5 14/ 32”)**
Mass:	**206g(7.3oz) (with batteries) 159g(5.6oz) (without batteries)**

Note:

Specifications are subject to change without notice. / Mass and dimensions are approximate.

Note on CD-R and CD-RW:

(CD-DA/MP3 only) / For CD-DA format, use a music disc and finalize* it after recording. The unit may not be able to play some discs due to the condition of the recording.

*** A process performed after recording that enables CD-R / CD-RW players to play audio CD-R and CD-RW.**

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Panasonic

1. Precaution of Laser Diode

CAUTION:

This unit utilizes a class 1 laser. Invisible laser radiation is emitted from the pickup lens when the unit is turned on:

1. **Do not look directly into the pickup lens.**
2. **Do not use optical instruments to look at the pickup lens.**
3. **Do not adjust the preset variable resistor on the optical pickup.**
4. **Do not disassemble the optical pickup unit.**
5. **If the optical pickup is replaced, use the manufactures specified replacement pickup only.**
6. **Use of control or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.**

2. Accessories

- Stereo headphones(L0BAD0000177).....1 pc.

3. Schematic Diagram

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3.1. Schematic Diagram Notes

Note:

- **S201:**
  Open switch.
- **S202:**
  Rest switch in “OFF” position. / (It turns “ON” when optical pickup comes to innermost periphery.)
- **S310:**
  Hold (HOLD) switch in “OFF” position.
- **S801:**
  Play/pause ( ) switch.
- **S802:**
  Stop/Turn off ( ) switch.
- **S803, 807:**
  Skip/search/ Album skip ( ) switch.
- **S804:**
  Program play/ Digital Re-master/ Anti-skip mode selection (MEMO) switch.
- **S805, 809:**
  Volume control (VOL+,VOL -) switch.
- **S806:**
  Sound quality selection (EQ) switch.
- **S808:**
  Play mode/ Album mode selection (PLAY MODE) switch.

- Components identified by ⚠ mark have special characteristics important for safety.

- When replacing any of components, be sure to use only manufacture’s specified parts shown in the parts list.

- The supply part number is described alone in the replacement parts.

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- Signal line

- : Positive voltage line.

- : Playback signal line.

- The voltage value and waveforms are the reference voltage of this measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of GND terminal (DC IN Jack). Accordingly, there may arise some errors in the voltage valuesandwaveforms depending upon the internal impedance of the tester or measuring unit.

  Measurement conditions:

  *( ).....CD playback mode (Test disc 1kHz, L+R, 0dB)

  *No mark.....CD stop mode

Caution!!

- IC and LSI are sensitive to static electricity.
- Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

3.2. Schematic Diagram

4. Replacement Parts List

Note:

- All parts are supplied by ASPC.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKK0171-W	BATTERY COVER	1	
A1	L0BAD0000177	STEREO HEADPHONES	1	
A1-1	RFX1364	EAR PAD	2	
A2	RQT8252-P	O/I BOOK	1	English

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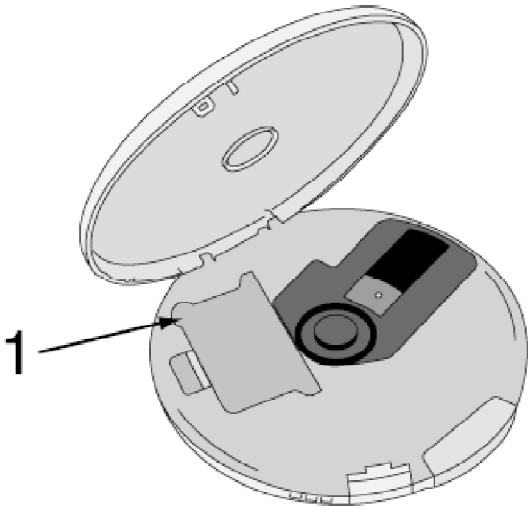

5. Schematic Diagram for Printing with Letter size

K0509HH/YH

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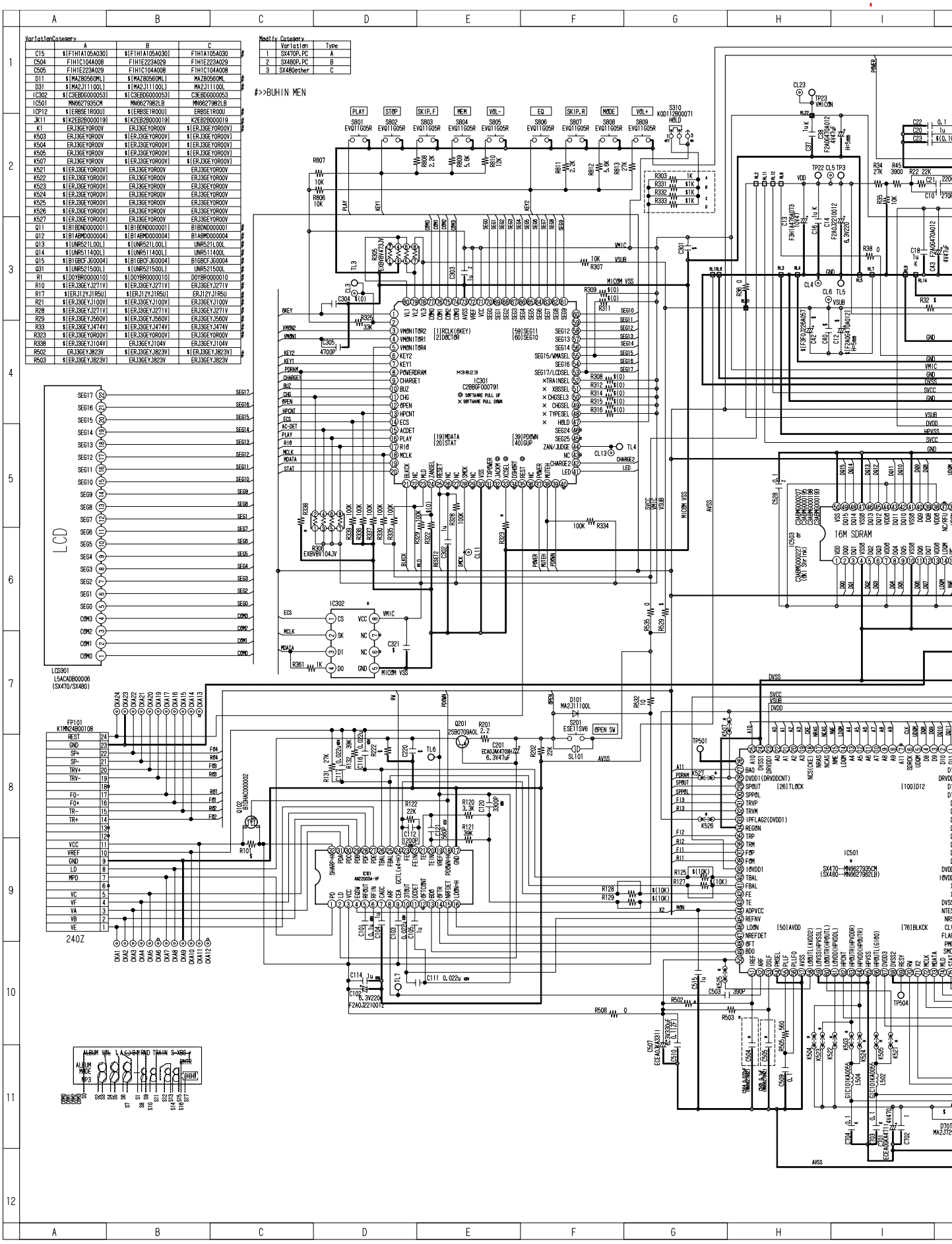
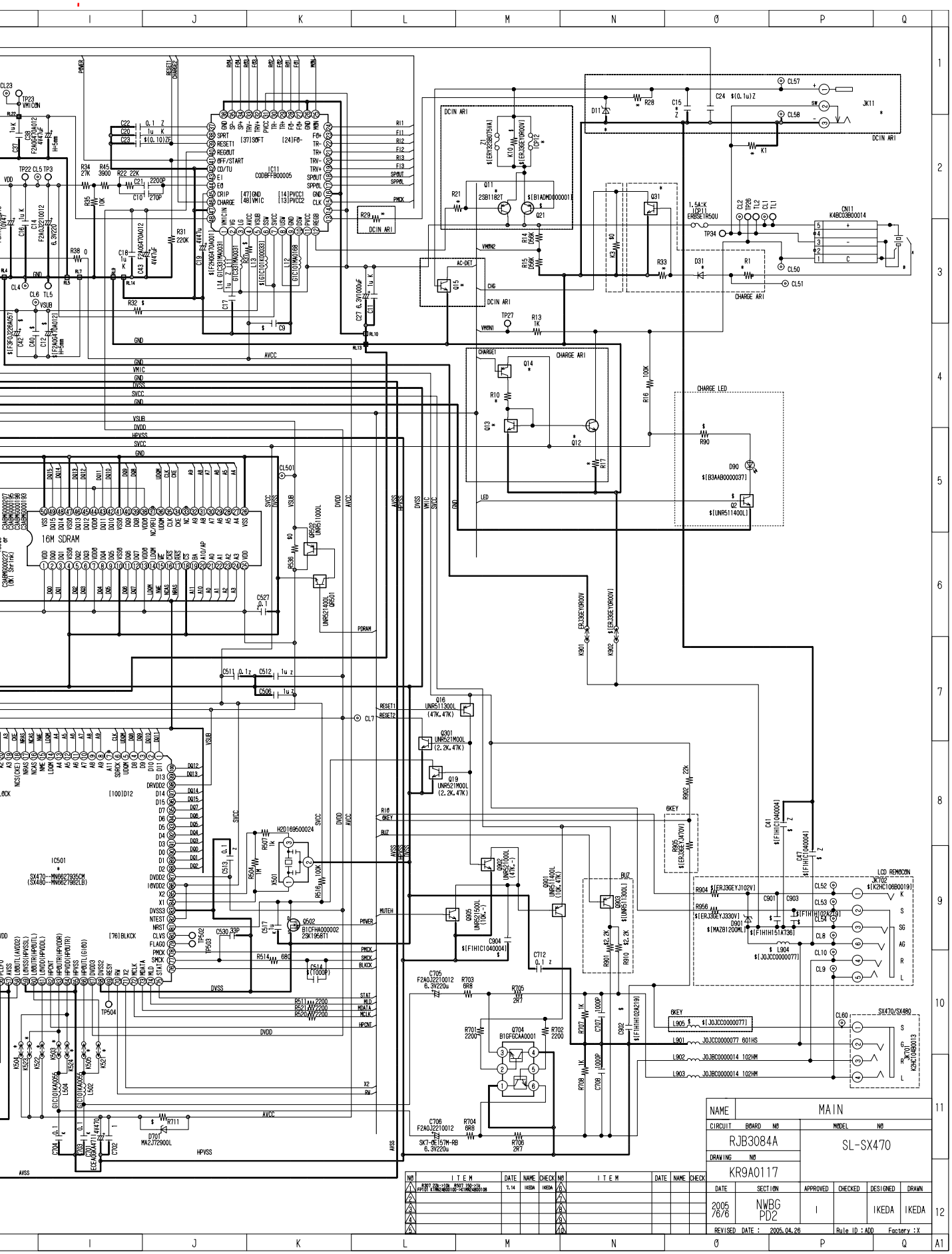

VariationCategory
A
B
C
C15 $(F1H1A105A030) $(F1H1A105A030) F1H1A105A030
C504 F1H1C104A008 F1H1E223A029 F1H1E223A029
C505 F1H1E223A029 F1H1C104A008 F1H1C104A008
D11 $(MAZ80560ML) $(MAZ80560ML) MAZ80560ML
D31 $(MA2J1110L) $(MA2J1100L) MA2J1100L
IC302 $(C3EBD6000053) $(C3EBD6000053) C3EBD6000053
L501 MN6627935CM MN6627982LB MN6627982LB
LCP12 $(ERBSE1R00U) $(ERBSE1R00U) ERBSE1R00U
JK11 $(K2EB2B000019) $(K2EB2B000019) K2EB2B000019
K1 ERJ3GEYOR00V $(ERJ3GEYOR00V) $(ERJ3GEYOR00V)
K503 ERJ3GEYOR00V $(ERJ3GEYOR00V) $(ERJ3GEYOR00V)
K504 ERJ3GEYOR00V $(ERJ3GEYOR00V) $(ERJ3GEYOR00V)
K505 ERJ3GEYOR00V $(ERJ3GEYOR00V) $(ERJ3GEYOR00V)
K507 ERJ3GEYOR00V $(ERJ3GEYOR00V) $(ERJ3GEYOR00V)
K521 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K522 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K523 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K524 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K525 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K526 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
K527 $(ERJ3GEYOR00V) ERJ3GEYOR00V ERJ3GEYOR00V
Q11 $(B1BDND000001) $(B1BDND000001) B1BDND000001
Q12 $(B1ABMD000004) $(B1ABMD000004) B1ABMD000004
Q13 $(UNR521L00L) $(UNR521L00L) UNR521L00L
Q14 $(UNR511400L) $(UNR511400L) UNR511400L
Q15 $(B1GBCFJ60004) $(B1GBCFJ60004) B1GBCFJ60004
Q31 $(UNR521500L) $(UNR521500L) UNR521500L
R1 $(D0YBR0000010) $(D0YBR0000010) D0YBR0000010
R10 $(ERJ3GEYJ271V) $(ERJ3GEYJ271V) ERJ3GEYJ271V
R17 $(ERJ12YJ1R5U) $(ERJ12YJ1R5U) ERJ12YJ1R5U
R21 $(ERJ3GEYJ100V) $(ERJ3GEYJ100V) ERJ3GEYJ100V
R28 $(ERJ3GEYJ271V) $(ERJ3GEYJ271V) ERJ3GEYJ271V
R29 $(ERJ3GEYJ560V) $(ERJ3GEYJ560V) ERJ3GEYJ560V
R33 $(ERJ3GEYJ474V) $(ERJ3GEYJ474V) ERJ3GEYJ474V
R323 $(ERJ3GEYOR00V) $(ERJ3GEYOR00V) ERJ3GEYOR00V
R338 $(ERJ3GEYJ104V) $(ERJ3GEYJ104V) ERJ3GEYJ104V
R502 ERJ3GEYJ823V $(ERJ3GEYJ823V) $(ERJ3GEYJ823V)
R503 $(ERJ3GEYJ823V) ERJ3GEYJ823V ERJ3GEYJ823V
ModifyCategory
Variation Type
1 SX470P.PC A
2 SX480P.PC B
3 SX480ether C
#>>BUHIN MEN
PLAY
STOP
SKIP.F
MEM
VOL-
EQ
SKIP.R
MODE
VOL+
S310 KQD12B00071
HOLD
R807 10K
R806 10K
R808 2.2K
R809 5.0K
R810 12K
R811 2.2K
R812 5.6K
R813 27K
R303 1K
R331 $1K
R332 $1K
R333 $1K
KEY1
KEY2
VMIC
VSUB
MICOM VSS
AVSS
DVSS
SVCC
VSUB
DVDD
HDVSS
GND
LCD
LCD301
L5ACADB00006
(SX470/SX480)
IC301
C2BBGF000791
M3823
SOFTWARE PULL UP
SOFTWARE PULL DOWN
IC302
16M SDRAM
IC501
SX470—MN6627935CM
(SX480—MN6627982LB)
FP101
K1MN24B00108
240Z
Q101
B1BHAC000002
Q201
2SB0709A0L
D101
MA2J1100L
ESE11SV6
SL101
OPEN SW
IC101
AN23034-VF
TP501
TP504
X2
ALBUM
MODE
MP3
PWR


IC11
CDBFFB00005
IC501
SX470-MN6627935CM
(SX480-MN6627982LB)
16M SDRAM
DCIN ARI
CHARGE ARI
CHARGE LED
AC-DET
LCD REM0C0N
JK702
$[K2HC106B0019]
SX470/SX480
JK701
K2HC104B0013
CN11
K4BC03B00014
JK11
DCIN ARI
$[ERJ3GEYJ102V]
$[ERJ3GEYJ330V]
$[MAZ81200ML]
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$[ERJ3GEYJ472V]
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$[ERJ3GEYJ223V

Variation Category

	Variation A	Variation B	Variation C	
C15	$(F1H1A105A030)	$(F1H1A105A030)	F1H1A105A030	%
C504	F1H1C104A008	F1H1E223A029	F1H1E223A029	%
C505	F1H1E223A029	F1H1C104A008	F1H1C104A008	%
D11	$(MAZB056CML)	$(MAZB056CML)	MAZB056CML	%
D31	$(MA2J111OOL)	$(MA2J111OOL)	MA2J111OOL	%
IC302	$(C3EBD6000053)	$(C3EBD6000053)	C3EBD6000053	%
IC501	MN662798CLB	MN662798CLB	MN662798CLB	%
IC912	$(EBBSE1R00J)	$(EBBSE1R00J)	EBBSE1R00J	%
JK11	$(K2EB2B000019)	$(K2EB2B000019)	K2EB2B000019	%
K1	ER J3GEY0R00V	ER J3GEY0R00V	$(ERJ3GEY0R00V)	
K503	ER J3GEY0R00V	$(ERJ3GEY0R00V)	$(ERJ3GEY0R00V)	
K504	ER J3GEY0R00V	$(ERJ3GEY0R00V)	$(ERJ3GEY0R00V)	
K505	ER J3GEY0R00V	$(ERJ3GEY0R00V)	$(ERJ3GEY0R00V)	
K507	ER J3GEY0R00V	$(ERJ3GEY0R00V)	$(ERJ3GEY0R00V)	
K521	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K522	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K523	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K524	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K525	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K526	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
K527	$(ERJ3GEY0R00V)	ER J3GEY0R00V	ER J3GEY0R00V	
Q11	$(B1EBND000001)	$(B1EBND000001)	B1EBND000001	
Q12	$(B1ABMD000004)	$(B1ABMD000004)	B1ABMD000004	
Q13	$(UNR521L00L)	$(UNR521L00L)	UNR521L00L	
Q14	$(UNR5114OOL)	$(UNR5114OOL)	UNR5114OOL	
Q15	$(B1GBCFJ60004)	$(B1GBCFJ60004)	B1GBCFJ60004	
Q31	$(UNR521500L)	$(UNR521500L)	UNR521500L	
R1	$(D0YBR0000010)	$(D0YBR0000010)	D0YBR0000010	
R10	$(ERJ3GEYJ271V)	$(ERJ3GEYJ271V)	ERJ3GEYJ271V	
R17	$(ERJ12YJ185U)	$(ERJ12YJ185U)	ERJ12YJ185U	
R21	$(ERJ3GEYJ100V)	$(ERJ3GEYJ100V)	ERJ3GEYJ100V	
R28	$(ERJ3GEYJ271V)	$(ERJ3GEYJ271V)	ERJ3GEYJ271V	
R29	$(ERJ3GEYJ560V)	$(ERJ3GEYJ560V)	ERJ3GEYJ560V	
R33	$(ERJ3GEYJ474V)	$(ERJ3GEYJ474V)	ERJ3GEYJ474V	
R323	$(ERJ3GEY0R00V)	$(ERJ3GEY0R00V)	ERJ3GEY0R00V	
R338	$(ERJ3GEYJ104V)	ER J3GEYJ104V	ERJ3GEYJ104V	
R502	ERJ3GEYJ823V	$(ERJ3GEYJ823V)	$(ERJ3GEYJ823V)	
R563	$(ERJ3GEY1J823V)	ERJ3GEYJ823V	ERJ3GEYJ823V	

Modify Category

	Variation	Type
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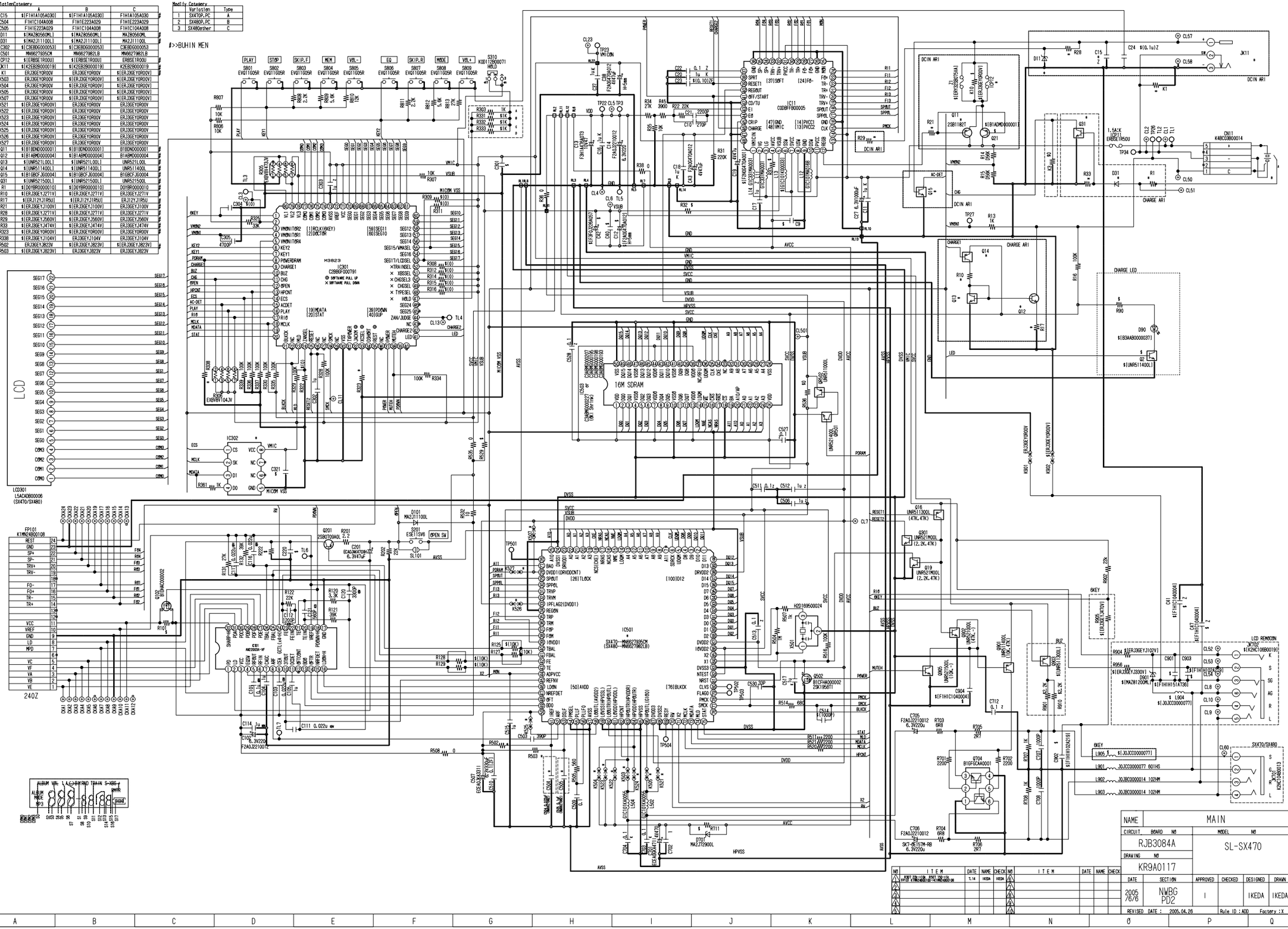
2	SX480P, PC	B
3	SX480other	C

#>>BUHIN MEN



NAME	MAIN		
CIRCUIT BOARD NO		MODEL NO	
RJB3084A		SL-SX470	
DRAWING NO			
KR9A0117			

DATE	SECTION	APPROVED	CHECKED	DESIGNED	DRAWN
2005 7/6	NWBG PD2	I		IKEDA	IKEDA

REVISED DATE : 2005.04.26 Rule ID : ADD Factory : X

NO	ITEM	DATE	NAME	CHECK
1	R307,330~338,R507,520~526 IP101 K1MN24B00108-K1MN24B00108	5.14	IKEDA	

NO	ITEM	DATE	NAME	CHECK